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Clifford J. Weber

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EXAMINER

POLLOCK, GREGORY A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/753,069	Applicant(s) WEBER ET AL.	
	Examiner GREG POLLOCK	Art Unit 3695	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 56, 57, 59, 95 and 97 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 56, 57, 59, 95, and 97 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 3695

DETAILED ACTION

1. This action is responsive to claims filed 06/20/2011 and Applicant's request for reconsideration of application 10/753069 filed 06/20/2011.

The amendment contains amended claims 56, 57, 59, 95, and 97.

Claims 1-55, 58, 60-94, 96, and 98-110 have been canceled.

As such, claims 56, 57, 59, 95, and 97 have been examined with this office action.

Claim Interpretation - Preamble

2. According to MPEP 2111.02, if the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim); *STX LLC. v.*

Art Unit: 3695

Brine, 211 F.3d 588,591, 54 USPQ2d 1347, 1350 (Fed. Cir. 2000). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). **All independent claims contain statement of intended use.**

Claim Interpretation – “traded funds”

3. Regarding claims 56 -59 and 97, Examiner has assumed a "traded fund" means a fund as described by Applicants as any type of investment instrument and is guided by Applicants' specification which says (page 12)
- "The invention provides systems and methods that allow trading of any fund while maintaining secrecy of the specific assets of the fund. While much of the following description is in terms of AMETFs, the funds traded using the systems and methods of the invention can include (and the term "fund" as used herein includes at least the following): any type of investment instrument including, for example, shares of mutual funds, unit investment trusts (UITs), closed-end funds, .grantor trusts, hedge funds, any investment company, or any other type of collective investment. Furthermore, while the examples provided herein demonstrate intra-day trading of fund shares on a stock exchange without disclosure of fund assets, the systems and methods of the invention are equally applicable to trading of secret-asset fund shares at any time on any venue, market, or exchange, for example, after-hours trading on a U.S.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 56, 57, 59, and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dembo 5799287 (U.S. Patent No. 5799287) in view of Kiron (PGPub Document No. 20020143676) in further view of Dembo 5148365 (U.S. Patent No. 5148365) or alternatively Kiron (PGPub Document No. 20020143676) in view of Dembo 5799287 (U.S. Patent No. 5799287) in further view of Dembo 5148365 (U.S. Patent No. 5148365).

As per claim 56, All of the limits of Claim 56 are addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

As per claim 57, Dembo 5799287 teaches a **method executed by a computer system to calculate an estimated value for a traded fund without publicly disclosing the assets of the traded fund** (see "traded fund" in Claim 56. Note that even though prior art has been applied, the claim limit "for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund" is a statement of intended use and, as such, is given no patentable weight.) **where the computer system includes one or more computers programmed to calculate an estimated value of the traded fund** ([column 7 lines 7-22] [Figure 1]), **the method comprising: determining a set of risk factors from a risk factor model** (see at least column 5 lines 18-26); **receiving or calculating by a computer system a set of traded fund sensitivity coefficients** (see at least column 5 lines 7-38, column 7 lines 23-25, Figure 1, claims 1(c), 6, 7, 11-12), **wherein each traded fund sensitivity coefficient specifies the exposure of the traded fund to one of the risk factors in the set of risk factors** (see at least column 5 lines 7-38, column 7 lines 23-25, Figure 1, claims 1(c), 6, 7, 11-12);

Art Unit: 3695

calculating by the computer system weights of securities to create a proxy portfolio that does not reveal the assets of the traded fund and has substantially the same sensitivity coefficients as the traded fund by a computer (see at least column 2 line 44 - column 5 line 26, especially column 3 lines 37-44, Figure 1, claim 11 "a portfolio manager controlling a given portfolio (i.e. a target portfolio) has the objective of constructing a replicating portfolio that behaves identically to the target portfolio under all possible future states of the world"; "a perfect replication will produce a perfect hedge for the target portfolio"; column 4 lines 38-42, "Given a target return distribution, the objective for a portfolio manager is to structure a replicating portfolio that tracks the target return (or any other attribute, such as volatility) under all possible scenarios"); **and calculating by the computer the estimated value for the traded fund based on the value of the proxy portfolio** (see at least column 32 lines 60-63, column 3 lines 5-11, column 5 lines 29-32). Dembo 5799287 also teaches or implies that the **proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor and wherein the assets of the traded fund are not publicly disclosed on a daily basis.** (see at least column 32 lines 60-63, column 3 lines 5-11, column 5 lines 29-32), *wherein the proxy portfolio does not reveal the traded fund assets and the identities of the traded fund assets are not disclosed to an investor who trades shares of the traded fund* (see at least "Given a target return distribution, the objective for a portfolio manager is to structure a replicating portfolio that tracks the target return (or any other attribute, such as volatility) under all possible scenarios" where it is clear that only the target return or other attribute is known and the possible scenarios clearly include known sensitivities and unknown identities of assets to all investors and members of the public. That no knowledge of the target's holdings are ever stated or used in the reference's method makes clear that this negatively stated limitation is met). However, it is not clear the traded funds are traded on **the secondary market.**

Kiron teaches **a method for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund** ([claims 146-149]. Note that even though prior art has been applied, the claim limit "for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund" is a statement of intended use and, as such, is given no patentable weight.), **comprising: using a computer to calculate weights of securities to create a proxy portfolio with substantially the same performance as the traded fund** (a second type of security synthetically replicates the performance of the targeted traded fund [¶21] [¶50] [¶55, lines 1-6] [¶61-62]); **and using a computer to calculate the estimated value for the traded fund based on the value of the proxy portfolio** ([¶55-57] [claim 146-149]), **wherein the proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor who trades shares of the traded fund on a secondary market, and wherein the assets of**

Art Unit: 3695

the traded fund are not publicly disclosed on a daily basis (the price (value) of the outstanding shares of the exchange traded fund is reported in real time [¶55-57] [claim 146-149]) and **publicly disclosing the estimated value for the traded fund periodically throughout the day** (the price (value) of the outstanding shares of the exchange traded fund is reported in real time [¶55-57] [claim 146-149]). Kiron does not indicate that the **set of risk factors** come from a **risk factor model** or the use of **traded fund sensitivity coefficients**.

It would have been obvious to one skilled in the art at the time of the invention to have combined the teachings of Dembo 5799287 and Kiron to achieve the claimed invention. Kiron provides Dembo 5799287 with the specifics of actually trading and displaying real time values for an exchange traded fund in a secondary market (actual exchange). Dembo 5799287 provides the invention of Kiron with the use of risk factors derived from a risk factor model and the use of traded fund sensitivity coefficients. The motivation to combine the references would include the ability to trade a futures contract on both a securitized fund share and an index of securitized fund shares with linked derivative securities. In addition, the present invention solves a long existing but unsolved and unrecognized need. Many investors, both professional and non-professional own multiple mutual funds in an effort to diversify their investment portfolios. An index of open end mutual funds would allow greater diversification, lower transaction costs, expanded investment choices and the ability to measure their fund performance against a relevant benchmark index. The index could be calculated many different ways with a great deal of flexibility: equal price weighted, capitalization weighted, or geometrically weighted, depending upon the need.

Dembo 5148365 teaches **wherein the proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor who trades shares of the traded fund on a secondary market** ([column 3, lines 1-6 and 23-26] [column 8, lines 12-16] [claims 8 and 14] traded options [claim 10, lines 1-3]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Dembo 5148365 with that of Dembo 5799287 and Kiron to achieve the claimed invention. The motivation would have been to provide the advantage of reducing the administration time and costs of the option at each roll-over date.

As per claim 59, All of the limits of Claim 59 have been previously addressed in Claims 56 and 57, and is therefore rejected using the same prior art and rationale.

As per claim 96, the rejection of claim 95 has been addressed.

Art Unit: 3695

All of the limits of Claim 96 have been previously addressed in Claim 58 and 57, and is therefore rejected using the same prior art and rationale.

As per claim 97, All of the limits of Claim 95 have been previously addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

6. Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dembo 5799287 (U.S. Patent No. 5799287) in view of Kiron (PGPub Document No. 20020143676) in further view of Dembo 5148365 (U.S. Patent No. 5148365) in further view of Shearer (PGPub Document No. 20020002521) or alternatively Kiron (PGPub Document No. 20020143676) in view of Dembo 5799287 (U.S. Patent No. 5799287) in further view of Dembo 5148365 (U.S. Patent No. 5148365) in further view of Shearer (PGPub Document No. 20020002521).

As per claim 95, Dembo 5799287 does not indicate that its invention include **exchange traded fund** as an application.

Shearer teaches the application of a risk factor model ([¶4-5] [¶8] [¶32-37] [¶50-57] [¶73] [¶83] [claims 2, 5, 11-17]) with an exchange traded fund as one of the applications of its invention ([¶4])

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Shearer with that of Dembo 5799287 and Kiron in order to achieve the claimed invention. The motivation to use Shearer within the combined inventions of Dembo and Kiron would have been that it provides the use of a Quadratic programming (QP) problems for optimizing (minimizing or maximizing) a quadratic function of decision variables subject to linear equality and or inequality constraints on those decision variables. This allows for the ability of being able to solve the optimization problem using QP techniques, embodiments of the invention double the number of variables associated with previously held loaded financial products. One

All of the limits of Claim 95 have been previously addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

Response to Arguments

7. Applicant's arguments with regards to claims 56, 57, 59, 95, and 97, filed 06/20/2011 have been fully considered but they are not persuasive.
8. APPLICANT REMARKS CONCERNING Claim Rejections - 35 USC § 112 (page 12-13): The applicant contends that none of the cited references, alone or in any combination, teach or suggest a system or method to determine an estimated value of a traded fund whose assets are not publicly disclosed on a daily basis in which an estimated value of the traded fund is calculated based on the value of a proxy portfolio where the identities of the assets of the traded fund are not disclosed to an investor who trades shares of the traded fund on a secondary market, and where the estimated value is published periodically throughout the day. All claims are believed patentable over the cited references, alone or in any combination.
9. EXAMINER'S RESPONSE: The Examiner respectfully disagrees with Applicant's arguments. Kiron states that the price (value) of the outstanding shares of the exchange traded fund is reported in real time [¶55-57] [claim 146-149], which clearly indicates that the price is not just displayed as a NAV at the end of a day, but throughout the day. As another example, McPherson (PGPub Document No. 20100057608) teaches **publicly disclosing the estimated value for the traded fund periodically throughout the day** (periodic or continuous processing of

Art Unit: 3695

mutual funds on a secondary market [¶2]). As such, the examiner contends that the claim limits are taught by the prior art of record.

10. Therefore, in view of the above reasons, Examiner maintains rejections.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- McPherson (PGPub Document No. 20100057608) teaches **publicly disclosing the estimated value for the traded fund periodically throughout the day** (periodic or continuous processing of mutual funds on a secondary market [¶2]).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

Art Unit: 3695

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Pollock whose telephone number is 571 270-1465. The examiner can normally be reached on 7:30 AM - 4 PM, Mon-Fri Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chuck Kyle can be reached on 571 272-5233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3695

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAP

09/11/2011

/Gregory Pollock/
Examiner, Art Unit 3695

Gregory A. Pollock

/Thu Thao Havan/
Primary Examiner, Art Unit 3695